

AgriProfit\$

Benchmarks for Alberta Cattlemen

Economics & Competitiveness

Economic, Productive & Financial Performance Of Alberta Cow/Calf Operations

Comparing:

Central Alberta Total,
Central Alberta Low Cost, and
5 Year Central Alberta Low Cost
Management Groupings

*(combining Aspen Parkland & portions of
Boreal Transition Grass Types)*

Production Year - 2010

October, 2012



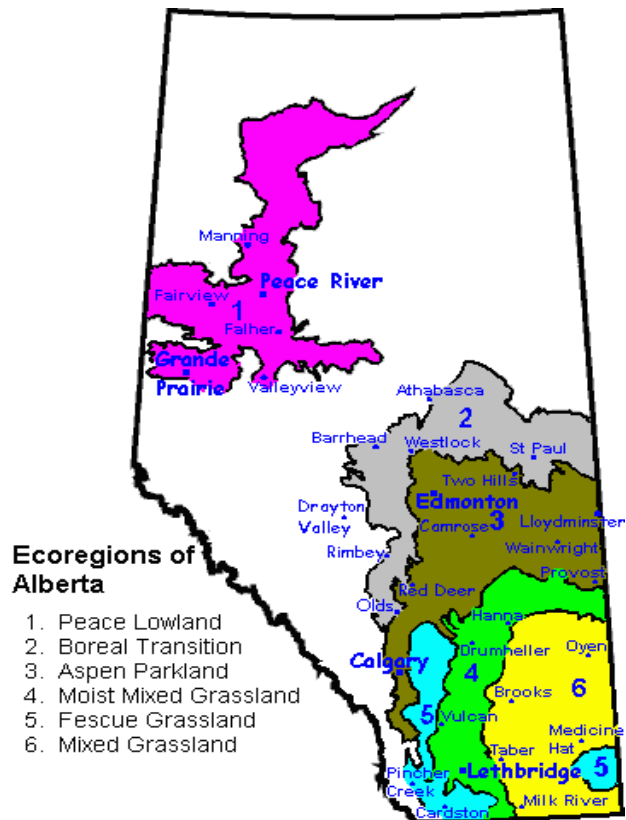
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This *AgriProfit\$ Cost & Returns Report* presents the productive, economic & financial performance of cow/calf producers in the Central Region for the 2010 production year.

Field research was undertaken through Alberta Agriculture's *AgriProfit\$ Business Analysis & Research* program with the cooperation of producers in the region.

The intent of this report is to benchmark three specific management groupings:

- a regional average including all *AgriProfit\$* participants in the Aspen Parkland & portions of the Boreal Transition grass types.
- an average of the "low cost" herds in the region during 2010. This "**Low Cost**" average includes the lower 50% of producers in the pool as ranked by total costs / lb. of calf weaned*.
- a five year average of the "low cost" herds in Central Alberta. This long term average includes producers in the lower half of each year group as ranked by total costs / lb. of calf weaned.



Cost and returns profiles for common forage and grazing crops in the grass type / region are included in this benchmark report in order to put these profit centers into context with the cow herd profiles they support. A list of definitions for common terms employed in this benchmark report is also appended.

The primary value of this report is to enable producers to gauge their productive, economic and financial performance relative to their peers locally and provincially. Benchmark analysis, comparing to one's own detailed cost and returns analysis, is the first critical step in identifying operational strengths and weaknesses in a cow/calf operation.

The map above illustrates the location of each grass type region within Alberta. This package only reports the results of one specific grass type region. If you are interested in obtaining information on specific regions, please contact the Economics Unit at:

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* For this analysis total production cost (TPC) per lb. weaned was the primary criteria for identifying the top management herd groupings. It should be noted, however, that there are several other factors that may contribute to the success of a cow/calf operation.

****Note:** Regional & top management groups had sufficient full farm observations to develop the farm financial benchmarks only these are used to develop the farm level financial performance indicators. Enterprise productive & economic information is developed based upon the whole Alberta sample.

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October-12

Historical Review of Alberta Cow/Calf Operations Economic, Financial & Productive Performance: 2006 - 2010

Benchmark Comparables: Central Alta vs. '06-10 C. Alta 5 Year Low TPC Group

Enterprise Type: Weaned-Calf

Enterprise Economic Performance: Major Unit Cost & Returns Groups

	----- \$ / Lb. Weaned -----					C.AB 5Yr Low TPC
	2006	2007	2008	2009	2010	
Weaned Calf Value	1.091	0.946	0.963	0.992	1.172	1.023
Winter Feed & Bedding Costs	0.455	0.451	0.452	0.572	0.531	0.364
Pasture Costs	0.355	0.424	0.401	0.405	0.420	0.378
Labour Costs	0.097	0.088	0.096	0.084	0.082	0.079
Other Variable Costs	0.154	0.151	0.149	0.137	0.139	0.133
Fixed Costs	0.098	0.103	0.096	0.090	0.086	0.077
Total Production Costs	1.159	1.217	1.194	1.287	1.258	1.032

Farm Financial Performance Indicators:

	2006	2007	2008	2009	2010	C.AB 5Yr Low TPC
<u>ROAD to Profitability</u>						
Risk (Debt to Asset Ratio)	0.13	0.14	0.14	0.17	0.18	0.19
Operating Expense Ratio	0.65	0.66	0.65	0.59	0.52	0.59
Asset Return	0.01	0.01	0.02	0.03	0.04	0.02
Debt Payout to Profitability	9.44	10.03	6.54	4.87	3.91	6.57
	34,285	35,576	55,622	88,100	123,561	65,925
<u>The "3-C's"</u>						
Current Ratio	2.88	3.65	3.04	3.19	3.44	4.84
Calif. Working Cap. Ratio	1.12	1.21	0.79	0.84	0.94	1.18
Capital Turnover Ratio	0.11	0.10	0.13	0.15	0.14	0.13
Farm Size (Acres)	2,139	2,405	2,523	2,855	2,409	2,131

Debt to Assets = Total Liabilities / Total Assets
 Operating Expense Ratio = Operating Expenses / Value of Production
 Return on Assets = Return on Assets / Total Farm Assets
 Debt Payout = Total Liabilities / Net Farm Income
 Profitability = Net Farm Income

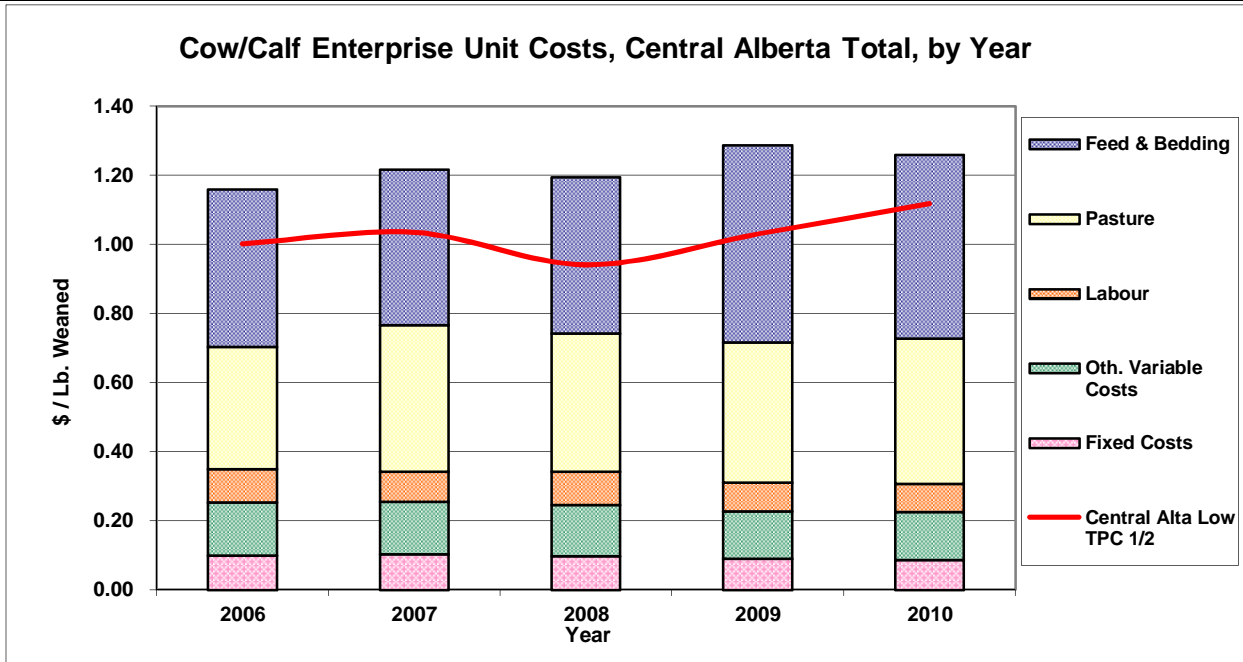
Current Ratio = Current Assets / Current Liabilities
 Calif. Working Cap. Ratio = Working Capital / Total Expenses
 Capital Turnover = Value of Production / Total Farm Assets
 Farm Size = Total Acres in crops, forages & grazing
 (includes all acres owned, rented & leased)

Productive Performance Indicators:

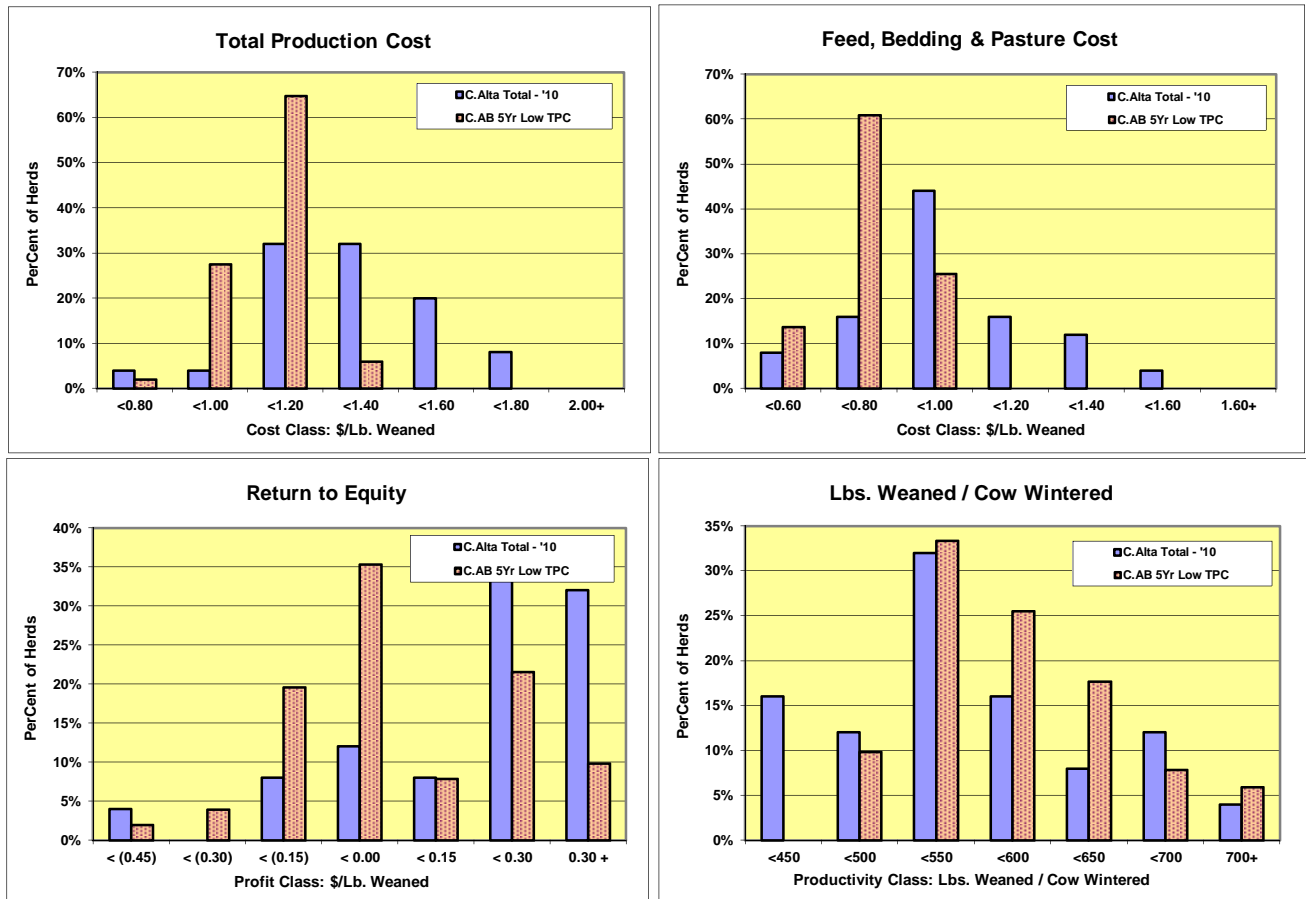
	2006	2007	2008	2009	2010	C.AB 5Yr Low TPC
Calf Crop (%)	87.1	81.7	83.6	84.7	82.8	87.1
Lbs. Weaned/Cow Wintered	547.8	534.4	548.2	510.2	549.8	575.7
Wean Wt as a % of Cow Wt.	42.6	42.6	43.6	41.5	44.9	45.0
Feeding Season Days	181.7	162.8	157.8	167.6	165.2	154.8
Tonnes Fed per Cow (as fed)	5.8	5.5	4.9	5.2	4.5	4.3
Growth (weaning weight)	562.4	572.8	580.0	539.1	597.5	590.2
O pen Cows (%)	9.7	11.1	12.7	8.7	11.1	10.0
L ength of Calving Period	148.1	115.6	111.2	103.2	105.1	104.1
D eath Loss of Calves (%)	3.6	6.1	2.6	4.9	4.0	3.0

Historical Review of Alberta Cow/Calf Operations (cont'd)

Benchmark Comparables: Central Alta, by Year
Enterprise Type: Weaned-Calf



Frequency Distributions: Selected Economic & Production Indicators, Central Alberta Total, 2010 vs. 5 Year C. Alta Low Cost Group



2010 Cow/Calf Enterprise Overview

Economic & Physical Performance Comparisons

Benchmark Comparables: Central Alta Total & Low Cost; C. Alta 5 Year Low TPC Groups

Enterprise Type: Weaned-Calf

Economic Performance Indicators:

	\$ / Lb. Weaned		
	Central Alta		C.AB 5Yr
	Total	Low TPC	Low TPC
Production Stock Sales	1.172	1.123	1.024
Value of Production	1.450	1.380	1.017
Winter Feed Costs	0.497	0.413	0.350
Bedding Costs	0.034	0.013	0.014
Pasture Costs	0.420	0.408	0.378
Labour Costs	0.082	0.075	0.079
Other Variable Costs	0.139	0.131	0.133
Depreciation & Capital Lease Payments	0.065	0.055	0.056
Other Fixed Costs	0.021	0.022	0.021
Total Cash Costs	1.124	0.992	0.900
Total Production Costs	1.258	1.117	1.032
Contribution Margin	0.278	0.339	0.062
Gross Margin	0.326	0.388	0.116
Return to Investment	0.200	0.268	(0.006)
Return to Equity & Management	0.192	0.263	(0.015)
Total Investment (\$ / cow wintered)	1,833	1,811	1,545

Physical Performance Indicators:

	Central Alta				Central Alta		
	Total	Low TPC	C.AB 5Yr Low TPC		Total	Low TPC	C.AB 5Yr Low TPC
Conception Rate (%)	86.5	88.8	89.3	Cows Wintered	168.4	157.5	177.4
Calving Rate (%)	98.4	99.6	99.8	Cows per Bull	23.0	22.4	24.5
Weaning Rate (%)	97.2	99.3	97.8	Labour Hours per Cow	4.3	4.4	4.5
Calf Crop (%)	82.8	87.8	87.1	AUM's/Cow Wintered	9.7	10.1	9.8
% Calved - 1st 2 Cycles	84.3	87.5	85.4	Feeding Season Days	165.2	158.6	154.8
Lbs. Weaned/Cow Exposed	494.4	521.9	514.0	Tonnes Fed per Cow			
Lbs. Weaned/Cow Wintered	549.8	583.1	575.7	- as-fed	4.5	4.1	4.3
Wean Wt as a % of Cow Wt.	44.9	45.0	45.0	- dry matter			
Weight per Day of Age (lbs.)	2.57	2.78	2.69				

	Central Alta		C.AB 5Yr
	Total	Low TPC	Low TPC
G rowth (weaning weight)	597.5	594.7	590.2
O pen Cows (%)	11.1	10.0	10.0
L ength of Calving Period	105.1	94.5	104.1
D eath Loss of Calves (%)	4.0	2.9	3.0

2010 Cow/Calf Enterprise Overview

Economic & Financial Performance Comparisons

Benchmark Comparables: Central Alta Total & Low Cost; C. Alta 5 Year Low TPC Groups

Enterprise Type: Weaned-Calf

Economic Performance Indicators:

	<i>\$ / Cow Wintered</i>		
	Central Alta		C.AB 5Yr
	Total	Low TPC	Low TPC
Production Stock Sales	644.08	654.78	589.42
Value of Production	797.32	804.67	585.26
Winter Feed Costs	273.46	240.84	201.33
Bedding Costs	18.62	7.70	8.08
Pasture Costs	230.74	237.71	217.83
Labour Costs	44.93	43.93	45.59
Other Variable Costs	76.66	76.59	76.72
Depreciation & Capital Lease Payments	35.66	32.11	32.53
Other Fixed Costs	11.62	12.63	11.83
Total Cash Costs	618.10	578.31	518.28
Total Production Costs	691.69	651.52	593.91
Contribution Margin	152.91	197.89	35.71
Gross Margin	179.22	226.36	66.97
Return to Investment	110.17	156.35	(3.65)
Return to Equity & Management	105.63	153.15	(8.65)

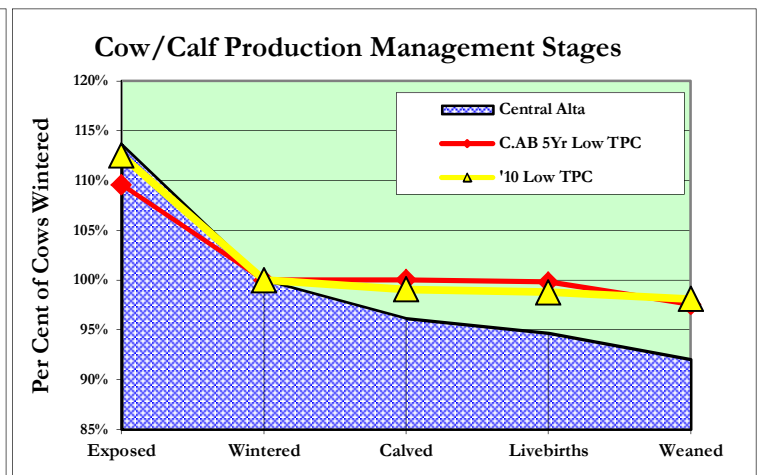
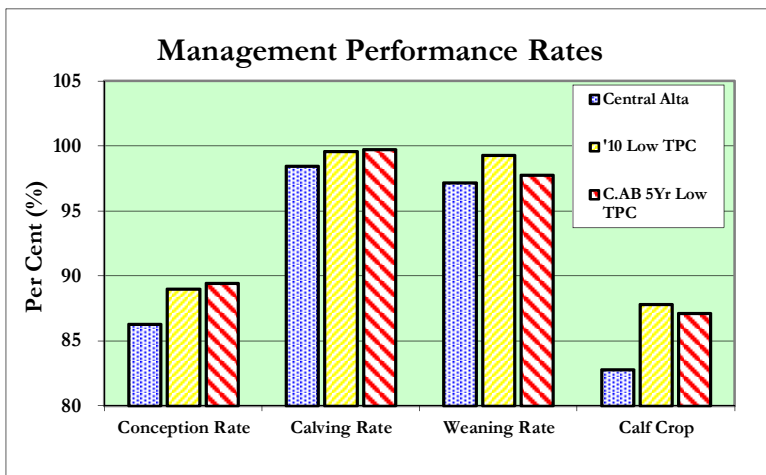
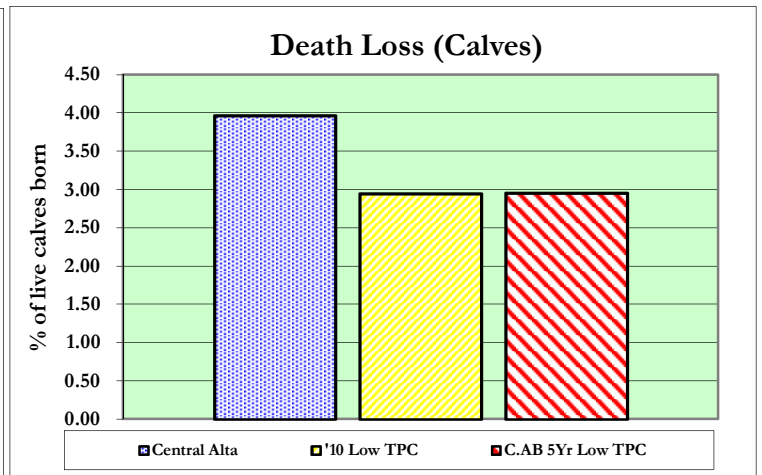
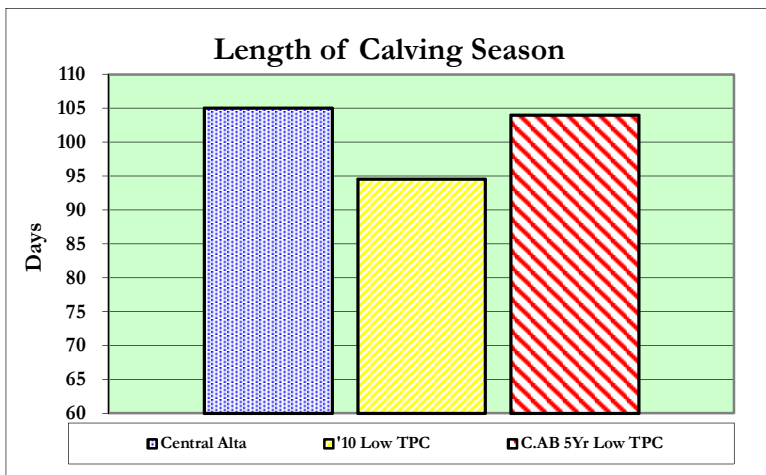
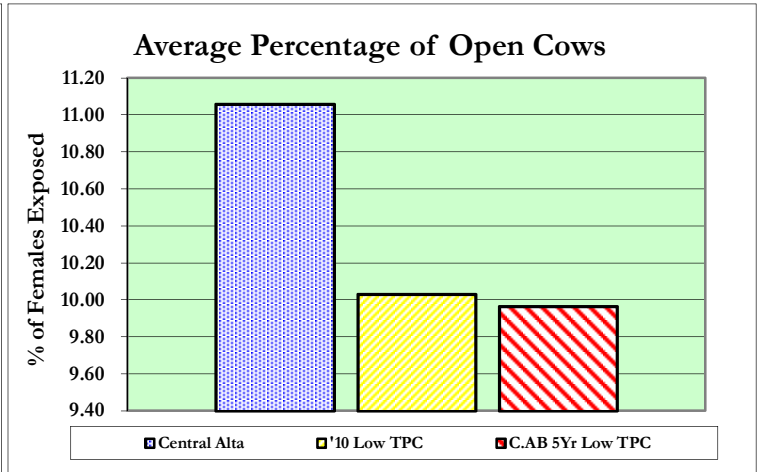
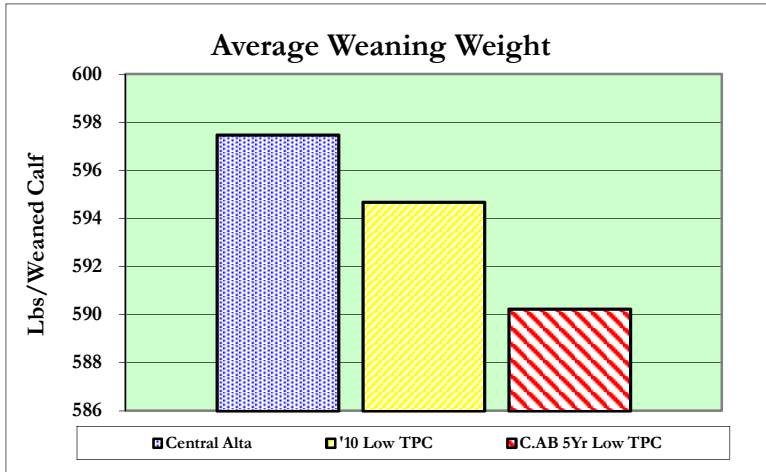
Financial Performance Indicators:

<i>ROAD to Profitability</i>	Central Alta		C.AB 5Yr Low TPC	
	Total	Low TPC		
Risk (Debt to Asset Ratio)	0.18	0.23	0.19	= Total Liabilities / Total Assets
Operating Expense Ratio	0.52	0.58	0.59	= Operating Expenses / Value of Production
Asset Return	0.04	0.03	0.02	= Return on Assets / Total Farm Assets
Debt Payout	3.91	6.43	6.57	= Total Liabilities / Net Farm Income
to Profitability	123,561.30	89,362.24	65,924.80	= Net Farm Income
<i>The "3-C's"</i>				
Current Ratio	3.44	3.92	4.84	= Current Assets / Current Liabilities
Calif. Working Cap. Ratio	0.94	0.85	1.18	= Working Capital / Total Expenses
Capital Turnover Ratio	0.14	0.14	0.13	= Value of Production / Total Farm Assets
Farm Size (Acres)	2,409	2,189	2,131	= Total Acres in crops, forages & grazing (includes all acres owned, rented & leased)

2010 Cow/Calf Enterprise Overview

Physical Performance Comparisons

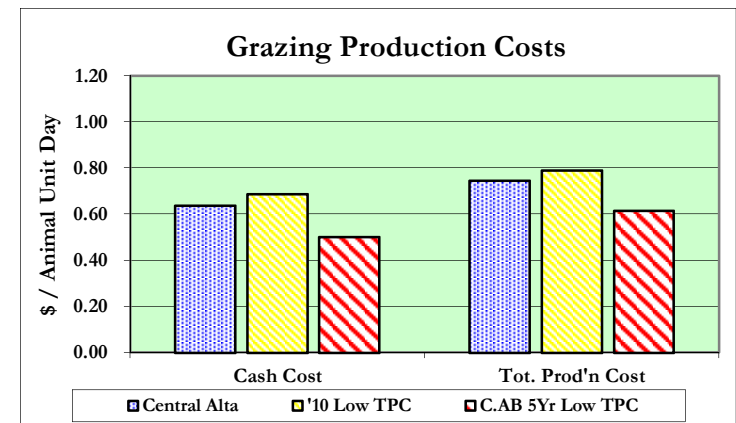
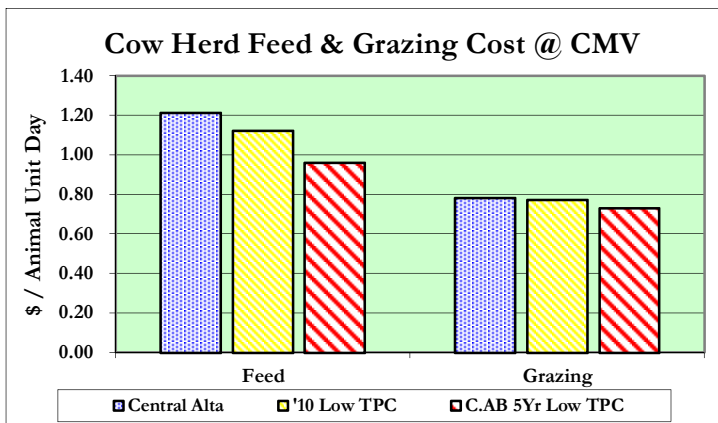
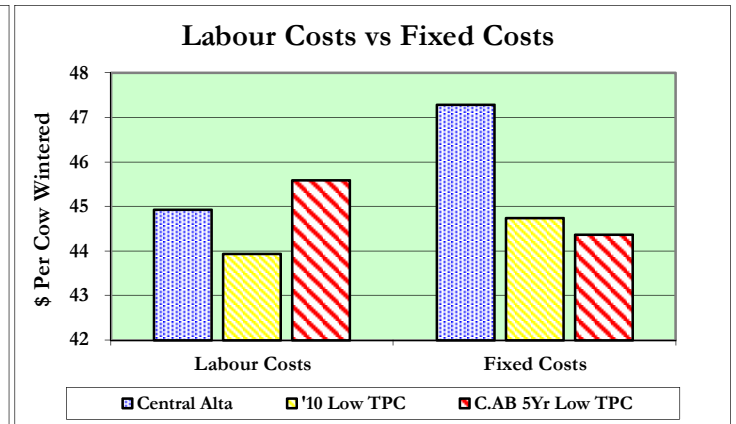
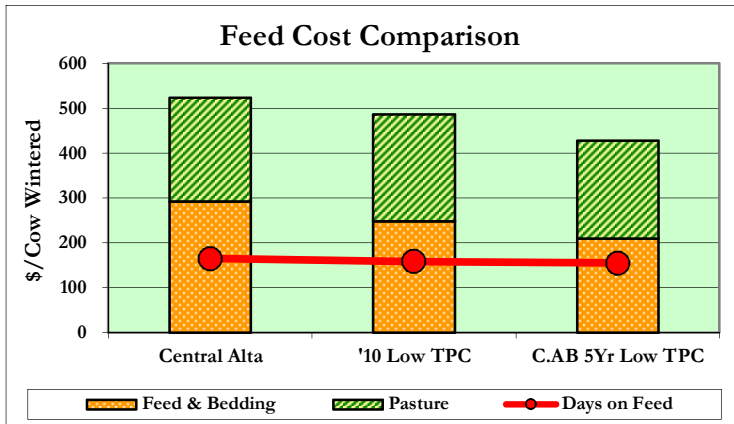
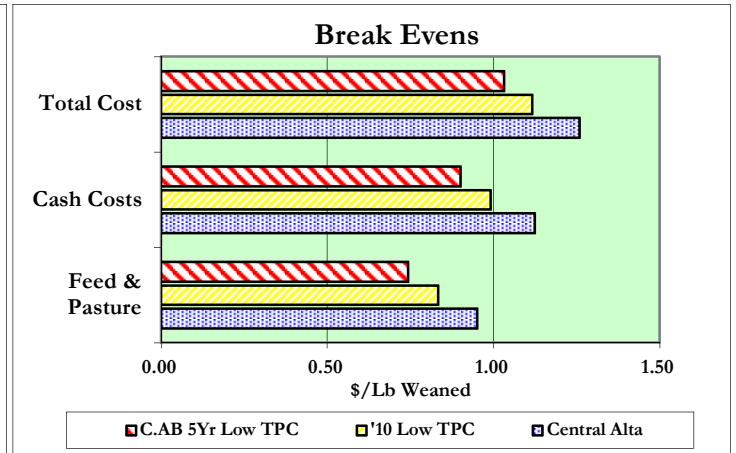
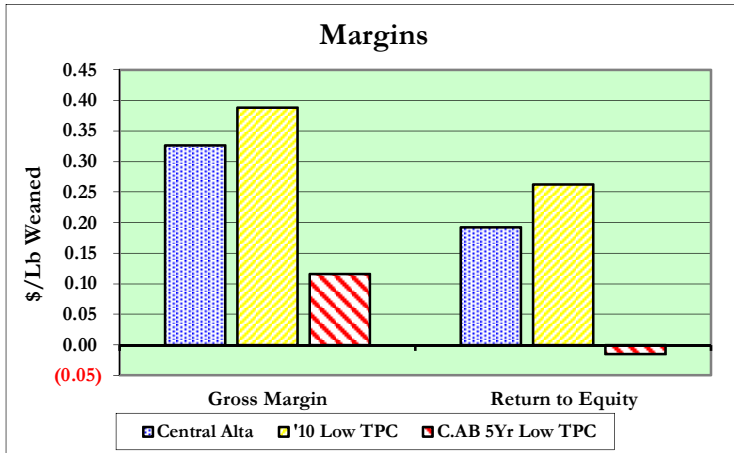
Benchmark Comparables: Central Alta Total & Low Cost; C. Alta 5 Year Low TPC Groups



2010 Cow/Calf Enterprise Overview

Economic Performance Comparisons

Benchmark Comparables: Central Alta Total & Low Cost; C. Alta 5 Year Low TPC Groups



Cow/Calf Enterprise Unit Cost & Returns Detail - 2010**Economic Performance Comparisons**

		Central Alta	C.AB 5Yr
		<u>Total</u>	<u>Low TPC</u>
		----- \$/Lb Weaned -----	
(A)			
1. Weaned Calves		1.17	1.02
2. Feeder Calves		0.00	0.00
3. Slaughter Cattle		0.00	0.00
4. Purebred Calves		0.00	0.00
5. Baby Calves		0.00	0.00
6. Cull Cows/Open Heifers		0.17	0.16
7. Bulls		0.02	0.02
8. Bred Cows/Bred Heifers		0.03	0.05
9. Miscellaneous Receipts		0.00	0.00
10. Government Programs		0.00	0.00
11. Inventory Adjustment		0.37	0.08
12. Less: Cattle Purchases		0.31	0.32
Value of Production		1.45	1.02
(B)			
1. Winter Feed		0.50	0.35
2. Bedding		0.03	0.01
3. Pasture		0.42	0.38
4. Veterinary & Medicine		0.04	0.03
5. Breeding Fees/Bull Rental		0.00	0.00
6. Trucking & Marketing Charges		0.02	0.02
7. Fuel		0.02	0.02
8. Repairs - Machine		0.02	0.01
9. Repairs - Corrals & Buildings		0.01	0.01
10. Utilities & Miscellaneous Expenses		0.02	0.03
11. Custom Work & Specialized Labour		0.01	0.01
12. Operating Interest Paid		0.00	0.00
13. Paid Labour & Benefits		0.01	0.00
14. Unpaid Labour		0.07	0.08
Variable Costs		1.17	0.95
(C)			
1. Share/Lease Cattle Payments		0.00	0.00
2. Taxes, Water Rates, Lic. & Insurance		0.01	0.01
3. Equipment & Building	a) Depreciation	0.06	0.06
	b) Lease Payments	0.00	0.00
4. Paid Capital Interest		0.01	0.01
Total Capital Costs		0.09	0.08
(D)	Cash Costs (B+C-B14-C3)	1.12	0.90
(E)	Total Production Costs (B+C)	1.26	1.03
(F)	Gross Margin (A-D)	0.33	0.12
	Return to Unpaid Labour (A-D+B14)	0.26	0.06
	Return to Investment (A-E+C4)	0.20	(0.01)
	Return to Equity (A-E)	0.19	(0.02)

Cow/Calf Enterprise Unit Cost & Returns Detail - 2010**Economic Performance Comparisons**

		Central Alta		C.AB 5Yr
		<u>Total</u>	<u>Low TPC</u>	<u>Low TPC</u>
		----- \$/Cow Wintered -----		
(A)				
1.	Weaned Calves	644.08	654.78	589.18
2.	Feeder Calves	0.00	0.00	0.00
3.	Slaughter Cattle	0.00	0.00	0.00
4.	Purebred Calves	0.00	0.00	0.00
5.	Baby Calves	0.00	0.00	0.24
6.	Cull Cows/Open Heifers	94.77	105.30	94.03
7.	Bulls	9.38	8.75	9.81
8.	Bred Cows/Bred Heifers	15.65	12.32	28.68
9.	Miscellaneous Receipts	0.12	0.25	0.22
10.	Government Programs	0.69	1.09	0.69
11.	Inventory Adjustment	201.58	192.63	46.32
12.	Less: Cattle Purchases	168.95	170.45	183.90
Value of Production		797.32	804.67	585.26
(B)				
1.	Winter Feed	273.46	240.84	201.33
2.	Bedding	18.62	7.70	8.08
3.	Pasture	230.74	237.71	217.83
4.	Veterinary & Medicine	20.03	18.30	19.55
5.	Breeding Fees/Bull Rental	0.04	0.04	0.38
6.	Trucking & Marketing Charges	12.53	10.30	12.18
7.	Fuel	11.85	14.06	11.88
8.	Repairs - Machine	8.74	8.15	7.70
9.	Repairs - Corrals & Buildings	3.83	4.15	4.59
10.	Utilities & Miscellaneous Expenses	13.33	16.70	14.96
11.	Custom Work & Specialized Labour	4.13	3.70	3.77
12.	Operating Interest Paid	2.19	1.19	1.71
13.	Paid Labour & Benefits	6.10	2.83	2.32
14.	Unpaid Labour	38.83	41.09	43.27
Variable Costs		644.41	606.78	549.55
(C)				
1.	Share/Lease Cattle Payments	0.28	0.58	0.88
2.	Taxes, Water Rates, Lic. & Insurance	6.80	8.85	5.96
3.	Equipment & Building	34.76	32.11	32.35
	a) Depreciation			
	b) Lease Payments	0.90	0.00	0.17
4.	Paid Capital Interest	4.54	3.19	5.00
Total Capital Costs		47.28	44.74	44.36
(D)	Cash Costs (B+C-B14-C3)	618.10	578.31	518.28
(E)	Total Production Costs (B+C)	691.69	651.52	593.91
(F)	Gross Margin (A-D)	179.22	226.36	66.97
	Return to Unpaid Labour (A-D+B14)	144.47	194.25	34.62
	Return to Investment (A-E+C4)	110.17	156.35	(3.65)
	Return to Equity (A-E)	105.63	153.15	(8.65)
Total Investment		1,832.54	1,811.46	1,544.61

**2010 Forage & Pasture Enterprise Cost & Returns Analysis
Central Alta**

----- Forages -----				----- Pastures -----		
	Alfalfa /Grass Hay	Mixed Grass Hay	Grain Silage	Alfalfa /Grass Pasture	Tame /Native Mixed	Swath Grazing
Average field size (acres)	63.4	33.4	62.3	72.5	193.1	44.3
Number of Observations	65	9	25	34	76	22
	-----\$/Tonne-----			-----\$/AUM-----		
(A) 1. Crop Sales	67.79	74.10	44.38	25.05	22.70	27.38
2. Crop Insurance Receipts	0.04	0.00	0.00	0.60	0.84	1.84
3. Miscellaneous Receipts	0.00	0.00	0.00	0.00	0.00	0.00
4. Government Programs	0.00	0.00	0.00	0.00	0.00	0.00
5. Straw / Aftermath Grazing	1.76	1.36	0.43	0.00	0.04	0.00
Gross Return	69.58	75.46	44.81	25.65	23.59	29.22
(B) 1. Seed	0.00	0.00	1.89	0.00	0.00	2.44
2. Fertilizer	1.91	8.54	6.16	0.00	0.00	5.88
3. Chemicals	0.00	0.00	2.21	0.00	0.00	1.61
4. Crop Insurance Premiums	1.48	0.00	0.99	0.73	0.56	1.10
5. Trucking & Marketing	0.00	0.00	0.00	0.00	0.00	0.00
6. Fuel	4.48	6.74	3.28	0.57	1.86	1.10
7. Irrigation Fuel & Electricity	0.00	0.00	0.00	0.00	0.00	0.00
8. Repairs - Machinery	5.01	6.71	1.51	0.37	1.36	0.18
9. Repairs - Buildings	0.35	0.00	0.06	0.45	0.63	0.20
10. Utilities & Misc. Expenses	3.18	3.76	1.05	0.50	1.12	0.22
11. Custom Work & Specialized Labour	1.36	0.00	2.93	0.00	0.00	1.41
12. Operating Interest Paid	0.58	2.81	0.13	0.02	0.27	0.04
13. Paid Labour & Benefits	0.67	3.33	0.14	0.18	0.59	0.10
14. Unpaid Labour	6.06	8.09	2.26	1.33	2.41	0.80
Variable Costs	25.09	39.98	22.62	4.15	8.79	15.08
(C) 1. Cash/Share Rent & Land Lease	9.97	14.74	3.14	2.31	10.86	1.18
2. Taxes, Water Rates, Lic. & Insurance	2.46	3.70	0.90	1.11	2.04	0.64
3. Equip. & Bldg. a) Depreciation	11.46	16.75	3.17	0.69	1.67	0.39
b) Lease Payments	0.09	0.00	0.05	0.00	0.13	0.01
4. Paid Capital Interest	3.62	1.59	0.75	2.71	1.83	1.64
Total Capital Costs	27.60	36.78	8.02	6.81	16.52	3.84
(D) Cash Costs (B+C-B14-C3)	35.17	51.93	25.21	8.94	21.23	17.74
(E) Total Production Costs (B+C)	52.70	76.76	30.64	10.96	25.31	18.93
(F) Gross Margin (A-D)	34.42	23.53	19.60	16.70	2.35	11.47
Return to Unpaid Labour (A-E+B14)	22.95	6.78	16.42	16.01	0.69	11.09
Return to Investment (A-E+C4)	20.50	0.29	14.91	17.39	0.10	11.93
Return to Equity (A-E)	16.89	(1.30)	14.17	14.69	(1.72)	10.29
Return on Investment (%)	4.0	0.0	11.5	4.1	0.0	3.6
Total Investment (\$/acre)	873.25	928.27	960.60	890.62	494.77	1,680.54
Management						
Yield per Acre (tonnes or AUM's)	1.71	1.32	7.43	2.11	0.97	5.08
Expected Market Price (\$/unit)	67.79	74.10	44.38	25.05	22.70	27.38

* Cost and returns profiles include/combine all tenure types ... owned, rented & leased.

Definitions & Explanations to Accompany the Cow/Calf Enterprise Overview

Production Stock Sales – revenues associated with the sale of weaned calves & other **non-breeding stock** related sales.

Value of Production (VOP) – the value of what was produced by the cow/calf enterprise over the course of the production year. Includes cash & non-cash values of:

- cull & breeding stock sales,
- revenues from miscellaneous sources (eg. Program payments, patronage refunds, etc) as allocated to the cow/calf enterprise,
- inventory adjustments relating changes in the number & value of stock included in the enterprise,
- an adjustment for livestock purchases (value is added only from the point of purchase forward)

Winter Feed Costs – the cost of all feeds used by the cow/calf enterprise, purchased or homegrown, based on the market value of these feeds (**not** the cost of raising the feeds).

Pasture Costs – the value of grazing used by the cow/calf enterprise (exclusive of any other retained ownership/backgrounding uses). Pasture is valued into the cow/calf enterprise at market value (**not** cost) & is treated as a “cash” cost.

Labour Costs – a sum of paid & contributed labour, as allocated to the cow/calf enterprise. Paid labour is valued at cost, while unpaid labour is valued at a standard or base cost.

Depreciation & capital Lease Payments – sum of depreciation & mach./equip’t/bldg. lease payments on assets allocated to the cow/calf enterprise.

Other Fixed Costs – total cash overheads, as allocated to the cow/calf enterprise (share/lease cattle payments, property taxes, insurances, licenses & term loan interest).

Total Cash Costs – sum of enterprise cash costs, considering home grown feeds, bedding & pasture as cash costs.

Total Production Costs – sum of all variable& fixed production costs.

Contribution Margin – VOP less Variable Costs

Gross Margin – VOP less Total Cash Costs

Return to Investment – VOP less Total Production Costs Plus Term (Capital) Interest Paid

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Return to Equity & Management – VOP less Total Production Costs.

Investment – sum of assets allocated to the enterprise. Includes: breeding stock, machinery, equipment, buildings/facilities & building site (only)

Breeding Performance Rates

(adjusted for sales & purchases of bred cattle)

Conception rate (%) - # Bred / # Exposed

Calving Rate (%) - # Livebirths / # Bred Females

Weaning Rate (%) - # Weaned / # Exposed

Calved in 1st 2 Cycles (%) - $\frac{\# \text{ Calved Cycle 1 \& 2}}{\text{Total Calved}}$

Lbs. Weaned/Cow Exposed - $\frac{\text{Total Lbs. Weaned}}{\# \text{ Females Exposed}}$

Lbs. Weaned/Cow Wintered - $\frac{\text{Total Lbs. Weaned}}{\# \text{ Bred Females Exposed}}$

Weaned Wt. As % of Cow Wt. - $\frac{\text{Avg. Lbs. Weaned}}{\text{Avg. Mature Cow Wt.}}$
(adjusting bred heifer wts.)

Weight per day of Age (lbs.) – $\frac{\text{Avg. Lbs. Weaned}}{\text{Wtd Avg Wean Age}}$

Cows Wintered – Open Inventory of Bred Cows & Heifers

Cows / Bulls - # Cows & Heifers Exposed / # Bulls Used

Labour Hours / Cow – Total Labour Hrs / Cows Wintered

AUM's / Cow Wintered – $\frac{\text{Total Enterprise AUM's}}{\text{Cows Wintered}}$

Feeding Season Days – Days Fed (in yard)

Tonnes fed per Cow –
As fed $\frac{\text{Tonnes Total Feed (As-Fed)}}{\# \text{ Cows Wintered}}$
Dry Matter $\frac{\text{Tonnes Total Feed (Dry Matter)}}{\# \text{ Cows Wintered}}$

GOLD Indicators

Growth (Wean wt.) - $\frac{\text{Total Lbs. Weaned}}{\# \text{ Calves Weaned}}$

Open Cows (%) - $\frac{\# \text{ Open Cows \& Heifers}}{\# \text{ Exposed}}$

Length of Calving Period – Days from 1st to last calf

Death Loss of Calves (%) - $\frac{\# \text{ Calves Died}}{\text{Live Births}}$